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ABSTRACT

The public has formed some myths and misconceptions about literacy. No substantive proof supports the grandiose assertion that literacy changes the way humans think and their intelligence. No one who has studied national surveys of adult literacy seriously believes that illiteracy in the United States will be eradicated by 2000. The literacy situation is serious, but similar problems of low literacy are becoming apparent in many European countries as well. Relatively little has been invested in literacy and workplace training and education. Research results suggest the increase in public awareness and attention has not brought about the dramatic gains for which policymakers and the public had hoped. Numeracy receives some, but generally less, attention in most adult basic education programs, although anecdotal evidence on adults suggests the average U.S. worker may lack many quantitative reasoning skills taken for granted in countries such as Japan. Technology for literacy remains an unfulfilled prophecy, largely due to the inability to create, and lack of funding for, instructional techniques appropriate and cost effective for the populations in need of training. Improved delivery systems, enhanced instructional systems that make use of advanced technologies, improved learner assessment and program evaluation, and expansion of well-trained professional staff may bring about change. (Contains 15 endnotes) (YLB)

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NATIONAL CENTER ON ADULT LITERACY

MYTHS AND MISCONCEPTIONS IN ADULT LITERACY:

A RESEARCH AND DEVELOPMENT PERSPECTIVE

Daniel A. Wagner
National Center on Adult Literacy
University of Pennsylvania

POLICY BRIEF 93-1
JUNE 1993

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The National Center on Adult Literacy (NCAL) was established in 1990 by the U.S. Department of Education, with co-funding from the Departments of Labor and Health and Human Services. The mission of NCAL addresses three primary challenges: (1) to enhance the knowledge base about adult literacy, (2) to improve the quality of research and development in the field and (3) to ensure a strong, two-way relationship between research and practice. Through applied research and development and dissemination of the results to researchers, policy makers and practitioners, NCAL seeks to improve the quality of adult literacy programs and services on a nationwide basis. NCAL serves as the largest operating unit of the Literacy Research Center at the University of Pennsylvania.

NCAL publications to date include:

May 1992 *Matching Literacy Testing with Social Policy: What are the Alternatives?*
Richard L. Venezky *(PB92-1, 8 pages)*

Oct 1992 *Life-span and Life-space Literacy: Research and Policy in National and International Perspective*
Daniel A. Wagner *(OP92-1, 24 pages)*

Oct 1992 *Expanding Theories of Adult Literacy Participation*
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Oct 1992 *Invitations to Inquiry: Rethinking Staff Development in Adult Literacy Education*
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Dec 1992 *Developing the Professional Workforce for Adult Literacy Education*
Susan L. Lytle, Alisa Belzer, Rebecca Reumann *(PB92-2, 11 pages)*

Jan 1993 *The Impact of BIB-Spiralling Induced Missing Data Patterns on Goodness-of-Fit Tests in Factor Analysis*
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Mar 1993 *The Impact of Workplace Literacy Programs: A New Model for Evaluation of Workplace Literacy Programs*
Larry Mikulecky, Paul Lloyd *(TR93-2, 180 pages)*

Mar 1993 *Literacy and Machines: An Overview of the Use of Technology in Adult Literacy Programs*
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MYTHS AND MISCONCEPTIONS IN ADULT LITERACY: A RESEARCH AND DEVELOPMENT PERSPECTIVE

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INTRODUCTION

One of the principal goals of educational research and development (R & D) is to demystify myths and misconceptions within a given field, to provide the kind of knowledge about what works (and what doesn't), and to explore opportunities that can lead to improved educational programs. In recent years, in part due to America's National Educational Goals, the establishment of the National Center on Adult Literacy and the passage of the National Literacy Act of 1991, the field of adult literacy has been the focus of a substantial increase in public awareness and fiscal support. This increased public awareness and the rapid expansion of community based literacy programs have generated a growing need for more accurate and up-to-date information on adult literacy programs and how to improve them.

This brief overview attempts first to explore some commonly held beliefs about adult literacy, and what the reality seems to be from an R & D perspective. Our discussion then turns to several opportunities in the field which can and should be explored from a research perspective, and which hold considerable potential for increasing adult literacy in the U.S.

MYTHS AND MISCONCEPTIONS ABOUT ADULT LITERACY

The problems of adult literacy, like those of education in general, have been much in the media in recent years. As such, much of the public has formed opinions on literacy, often based on a rather superficial understanding of the complex set of factors which must be addressed for real change to take place. We start this overview, therefore, with what might be considered to be 'lay' conceptions of adult literacy. Further down the list, we delve into more specialized areas of knowledge that have remained relatively unexplored until fairly recently.

- ***Literacy changes the way humans think, their logical abilities, and their intelligence.***

  This mental consequences model of literacy has been around for centuries. Especially in the imperial 19th century it was thought that if a people were not literate they would remain childlike in their thinking and behavior; literacy (often through religious training) was thought to be the way to save the uneducated and uncivilized world. We now know that there is no substantive proof to support such a grandiose assertion, as little or no impact of literacy on cognitive functioning or intelligence has been found in careful research studies.[1] Unfortunately, this myth has been counterproductive in a number of ways, especially in terms of raising the self-esteem of learners who come into programs feeling that they have failed in prior learning experiences.

- ***Illiteracy in America will be eradicated by the year 2000 (or anytime soon).***

  This is National Educational Goal #5, and it has also been the goal of the United Nations. No one who has studied national surveys of adult literacy seriously believes that we can meet such a target. It is all the more improbable because the literacy demands of everyday life and work are constantly expanding over time.[2] The problem of "who's literate enough" will always reside in definitional issues. Being literate in the most narrow sense is not enough; Americans need to be broadly literate, skilled in numeracy and technology, and be able to communicate effectively.

- ***The literacy situation in America is terrible relative to other industrialized countries.***

  According to the United Nations,[3] the U.S. has a 4% illiteracy rate, roughly equivalent to the other industrialized nations of the world. These data compare well against many other less-developed countries in the world, which have adult illiteracy rates as high as 75%. This is comforting to some, but should not be. These statistics are estimates based on levels of schooling achieved, rather than measures based on literacy levels per se. Furthermore, in industrialized countries, it is low-literacy rather than illiteracy which is causing public concern. Nonetheless, one recent international study suggests that American 9 and 14 year old students compared quite favorably with cohorts of students from other industrialized countries.[4] Overall, the literacy situation in the U.S. is serious, but similar problems of low literacy are becoming apparent in many European countries as well.[5]

- ***The United States government has made a major investment in literacy and workplace training and education, an investment that compares favorably with other industrialized countries.***

  The media have done much to make the public and policy makers aware of the problems of low literacy in contemporary America. Estimates of training and upskilling investment in the private sector are estimated to be as high as $40B per annum.[6] Yet, in the public sector, a recent study of federal investment in adult basic education for the period 1986-1989 estimates the total at about $250M per annum. Although the National Literacy Act of 1991 gave another boost, federal support may be seen to be trivial with respect to private sector support for upskilling the American workforce. Comparatively speaking, the U.S. has yet to put into place the kinds of innovative schemes for tax rebates on worker training that exist in France and Sweden, nor the skills-oriented apprenticeship programs favored in Germany.[7] Indeed, relatively little has been invested to date in workplace literacy programs, and we are only now beginning to have some consensus on models for assessment and evaluation of such programs.[8] The Clinton administration has made much of the new interest in

worker training, so this is one area in which major changes may be expected.

- ***The increase in public awareness and attention has led to significant improvements in literacy in this country.***

  As noted above, the increase in attention has not been matched with a similar increase in funding for adult education, which remains minimal compared to the K-12 formal school system. However, the effectiveness of adult literacy programs is likely to be considerably below what the public, policy makers, and even service providers believe. Although long-term research is still wanting, a number of studies suggest that most service providers are quite conscious of the high dropout (or stopout) rates of adult learners, that staff have had only minimal training in adult instruction, and that data on students "meeting their desired goals" is highly subjective and susceptible to misinterpretation.[9] More troubling is research which shows that nearly half of all new adult learners who complete one hour of instruction drop out within 16 weeks.[10] Such results suggest that the renewed efforts to improve adult literacy have not brought the dramatic gains that have been hoped for by policy makers and the public.

- ***Although numeracy is known to be a problem for some adults, programs can cover this problem by including some arithmetic in the adult literacy curriculum.***

  In most adult basic education programs in America, reading and writing are the core components of the instructional materials, with elementary mathematics (or numeracy) receiving some, but generally less attention. Yet recent research has indicated that numerical problem solving ability is among the most stable predictors of functional literacy skills (even better than vocabulary ability),[11] and that such numeracy skills are among those most crucial for workplace needs. Furthermore, while the numeracy skills of the adult American population have been found to be critically low relative to perceived societal needs, research in this domain is now only just beginning.[12] As in K-12 schooling, mathematical and language/literacy learning are acquired through quite different cognitive processes. Nonetheless, there are some

learning connections between numeracy and literacy, especially in the impact of low reading and writing skills on written mathematical problems (such as in a newspaper article). Anecdotal evidence on adults, and empirical results on children, suggest that the average American worker may lack in many of the quantitative reasoning skills that are taken for granted in countries such as Japan.[13]

- ***If only we could apply better instructional tools, taking advantage of high technology, our literacy problems would disappear.***

Americans put a great deal of faith in technological solutions. Literacy ought to be one area where technology can make a real difference. Yet, technology for literacy remains an unfulfilled prophecy, largely due to the inability to create, and lack of funding for, instructional techniques that are appropriate and cost-effective for the populations that are in need of training. Recent reports suggest that new technologies are likely to be increasingly utilized in adult literacy programs.[14] This is not only due to the appeal of technology to institutions, but also to the nature of individualized learning that appeals to the adult learner who might not have been successful in formal classroom settings. Many adult learners find it helpful to have self-paced and embarrassment-proof learning tools. New instructional techniques are likely to focus on the specific needs of adults learning a second language or literacy, learning new job-related skills, and in intergenerational programs where adults and children learn together.

OPPORTUNITIES FOR CHANGE

The field of adult literacy holds tremendous promise in America. On the one hand, there has never been as great a public recognition that low literacy is a problem for our society. On the other, there has never been as much attention (and resources) to the need for reinventing the field through research and innovation as we have today. This historical situation will likely open a number of opportunities for major changes in how we carry out adult literacy programs. In my view, the next decade will see: improved delivery systems in the home (via technology), at work, and through social service agencies; enhanced instructional systems that make use of advanced technologies (including speech) for much more specific skill needs than are taught today; improved and simplified learner assessment and program evaluation techniques; and an expansion of well-trained professional staff for instruction. This is a short list; much more can and will be added. What is not in question is whether major changes will take place.

CONCLUSION

Although an old endeavor, adult literacy is a new scientific territory. Compared to reading in school-aged children, the research literature on adult literacy acquisition is only just beginning. There are many more topics which could have been listed above, and for which we have still relatively scant information. But expanded efforts are underway to build an effective knowledge base, and major projects will soon give the field a much better idea of how to solve some of the major problems in the field.[15] But it must be emphasized that attention to myths and misconceptions should not imply a negative perspective on current adult literacy work in the U.S. -- quite the opposite is the case. Discussion and analysis of the limits of our knowledge are crucial in order to continue to improve the quality and effectiveness of adult literacy programs. As in K-12 schooling, the field of adult literacy harbors many diverse and conflicting beliefs. Exploration of the basis for such beliefs is one of the most important avenues for improving adult literacy in America.

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15 In 1993, reports will be published on the federally funded National Adult Literacy Survey, the National Evaluation of Adult Education Programs, and continued R&D reports from NCAL.